DELL™ POWERCONNECT™ 5400 SERIES SWITCHES

Dell PowerConnect 5448 and 5424 Gigabit Ethernet[1] switches are designed to deliver advanced security and enterprise management capabilities — and they are the world's first iSCSI-optimised switches.

ENTERPRISE-CLASS PERFORMANCE AND CAPABILITY

The PowerConnect 5400 series switches offer secure, fixed-port Gigabit Ethernet[1] switching solutions which deliver full wire-speed switching performance. With 24 or 48 built-in copper Gigabit Ethernet[1] ports in a 1U form factor, the PowerConnect 5400 series has a total switching capacity of up to 96 Gbps. The switches also offer flexibility with their four SFP transceiver slots which can be used in lieu of up to four copper ports to support fiber media.

WORLD'S FIRST ISCSI-OPTIMISED SWITCH

iSCSI is a communication protocol used for sending data between servers and storage devices. The PowerConnect 5400 series is the world's first switch portfolio which automatically optimises for iSCSI traffic. The switches detect whether traffic flows are iSCSI-based and if so assign that traffic flow a high-level of Quality of Service. This helps ensure that iSCSI storage traffic is prioritised in the event of resource contention. The 5400-series also automatically provides information about all active iSCSI sessions to allow for easier management and optimisation.

ROBUST SECURITY

Advanced security features of the PowerConnect 5400 series switches help protect the network from accidental or malicious interference. Edge authentication is supported through the industry-standard IEEE 802.1x protocol which allows network access through RADIUS-defined usernames and passwords. The PowerConnect 5400 series provides password management for increased network security and improved password control by encrypting management traffic through SSL or SSH and secures SNMP access by filtering hosts based upon IP address. MAC-based port security is designed to prevent unauthorised MAC addresses from accessing the network. This feature can send a trap to alert select administrators whenever an unknown MAC address attempts to access the network, and can shut down the port if desired. RADIUS and TACACS+ support enables centralised, remote authentication of administrative access to the switch. Management access filtering provides a mechanism to limit network hosts that have management access to the switches.

EASY, POWERFUL ENTERPRISE MANAGEMENT

The PowerConnect 5400 series switches feature many enterprise management capabilities to help network administrators optimise network traffic. These include multi-layer QoS that can support VoIP-capable infrastructures, multicast support to help reduce unnecessary multicast network traffic, link aggregation for expanded network bandwidth, and dynamic VLAN configuration. The PowerConnect 5400 series switches can be managed via an industry-standard command line interface (CLI), embedded Web server, third party SNMP-based management console applications, Telnet, or serial connections.

ADVANCED SWITCHING FEATURES

The PowerConnect 5400 series switches feature enhanced VLAN support such as Voice VLANs and Guest VLANs. LLDP (Link Layer Discovery Protocol) allows for troubleshooting and enhanced network management over multi-vendor environments and DHCP Snooping further expands network security. LLDP Media Endpoint Discovery (LLDP-MED) increases network flexibility by allowing different IP systems to co-exist on a single network LLDP. LLDP provides detailed network topology information, emergency call service via IP Phone location information, and troubleshooting information.

DELL GLOBAL SERVICES

Dell brings absolute execution to IT Services. The planning, implementation and maintenance of your IT infrastructure deserves nothing less. Variability in execution can compromise user productivity, IT resources and ultimately, your reputation. By leveraging our heritage of process-driven excellence, Dell Services can deliver a smarter way. We don't claim to do everything. We focus on IT infrastructure services. And we take a customer-led approach, grounded in the philosophy that you know your business better than anyone.

That's why Dell does not try to take key business decisions out of your hands, or lock you into more than you need. Instead, we deliver what customers today most need — flexibility and repeatable quality. That's absolute execution. That's Dell.

ASSESSMENT, DESIGN AND IMPLEMENTATION SERVICES

IT departments are continually challenged to evaluate and implement new technologies. Dell's assessment, design and implementation services can enhance performance and scalability while helping to maximise your return on investment and minimise disruption to your business.

ASSET RECOVERY AND RECYCLING SERVICES

Proper disposal, reselling and donation of computer equipment is a time-consuming task that typically falls to the bottom of many IT to-do lists. Dell simplifies the end of life processes for IT equipment in a way that can maximise value for customers.

SUPPORT SERVICES

Our Support services offer proactive maintenance to help prevent problems as well as rapid response and resolution of problems when they do occur. We have built a robust global infrastructure that offers multiple levels of enterprise support for systems throughout your infrastructure.

To help you get the most from your Dell systems, visit **www.dell.com/ap/services**.

Services vary by region.

FEATURES	DELL™ POWERCONNECT™ 5448	DELL™ POWERCONNECT™ 5424
Port Configuration	48 10/100/1000BASE-T auto-sensing Gigabit Ethernet[1] switching ports 4 SFP combo slots for fiber media support (Note: SFP slots are used instead of the built-in 10/100/1000BaseT ports) Auto-negotiation for speed, duplex mode and flow control Auto MDI/MDIX Port mirroring Broadcast storm control	24 10/100/1000BASE-T auto-sensing Gigabit Ethernet[1] switching ports 4 SFP combo slots for fiber media support (Note: SFP slots are used instead of the built-in 10/100/1000BaseT ports) Auto-negotiation for speed, duplex mode and flow control Auto MDI/MDIX Port mirroring Broadcast storm control
Performance	Switch Fabric Capacity 96.0 Gb/s Forwarding Rate 71.2 Mpps Up to 8,000 MAC Addresses	Switch Fabric Capacity 48.0 Gb/s Forwarding Rate 35.6 Mpps Up to 8,000 MAC Addresses
Management / Advanced Switching Features	Web-based management interface Industry-standard CLI accessible via Telnet or Local Serial Port SNMPv1, SNMPv2c, SNMPv3 supported 4 RMON groups supported (history, statistics, alarms, and events) TFTP transfers of firmware and configuration files Dual firmware images on-board Multiple configuration file upload/download supported Statistics for error monitoring and performance optimisation including port summary tables BootP/DHCP IP address management supported Syslog remote logging capabilities LLDP-MED iSCSI optimisation SNTP	Web-based management interface Industry-standard CLI accessible via Telnet or Local Serial Port SNMPv1, SNMPv2c, SNMPv3 supported 4 RMON groups supported (history, statistics, alarms, and events) TFTP transfers of firmware and configuration files Dual firmware images on-board Multiple configuration file upload/download supported Statistics for error monitoring and performance optimisation including port summary tables BootP/DHCP IP address management supported Syslog remote logging capabilities LLDP-MED iSCSI optimisation SNTP
Quality of Service	8 priority queues per port Layer 2 Trusted Mode (IEEE 802.1p tagging) Layer 3 Trusted Mode (DSCP) Adjustable Weighted-Round-Robin (WRR) and Strict Queue Scheduling	8 priority queues per port Layer 2 Trusted Mode (IEEE 802.1p tagging) Layer 3 Trusted Mode (DSCP) Adjustable Weighted-Round-Robin (WRR) and Strict Queue Scheduling
Security	Switch access password protection User-definable settings for enabling or disabling Web, SSH, Telnet, SSL management access Port-based MAC Address alert and lock-down IP Address filtering for management access via Telnet, HTTP, HTTPS/SSL, SSH, and SNMP RADIUS and TACACS+ remote authentication for switch management access SSLv3 and SSHv2 encryption for switch management traffic Management access filtering via Management Access Profiles IEEE 802.1x–based edge authentication MAC and IP based ACLs	Switch access password protection User-definable settings for enabling or disabling Web, SSH, Telnet, SSL management access Port-based MAC Address alert and lock-down IP Address filtering for management access via Telnet, HTTP, HTTPS/SSL, SSH, and SNMP RADIUS and TACACS+ remote authentication for switch management access SSLv3 and SSHv2 encryption for switch management traffic Management access filtering via Management Access Profiles IEEE 802.1x–based edge authentication MAC and IP based ACLs
VLAN	IEEE 802.1Q tagging and port-based, up to 4,000 user-configurable VLANs Protocol-based VLANs Dynamic VLANs with GVRP support	IEEE 802.1Q tagging and port-based, up to 4,000 user-configurable VLANs Protocol-based VLANs Dynamic VLANs with GVRP support
Multicast	IGMP v1/v2 snooping IGMP snooping for IP multicast support IGMP Queuer Static IP Multicast	IGMP v1/v2 snooping IGMP snooping for IP multicast support IGMP Queuer Static IP Multicast
Switching Features	Link Aggregation with support for up to 8 aggregated links per switch and up to 8 member ports per aggregated link (IEEE 802.3ad) LACP support (IEEE 802.3ad) Port mirroring Jumbo frame support up to 10K	Link Aggregation with support for up to 8 aggregated links per switch and up to 8 member ports per aggregated link (IEEE 802.3ad) LACP support (IEEE 802.3ad) Port mirroring Jumbo frame support up to 10K
Availability	External redundant power support with PowerConnect RPS-600 (sold separately) Spanning Tree (IEEE 802.1D) and Rapid Spanning Tree (IEEE 802.1w) with Fast Link support Dual firmware images Configuration file upload and download External redundant power support with PowerConnect RPS-600 (sold separately)	External redundant power support with PowerConnect RPS-600 (sold separately) Spanning Tree (IEEE 802.1D) and Rapid Spanning Tree (IEEE 802.1w) with Fast Link support Dual firmware images Configuration file upload and download External redundant power support with PowerConnect RPS-600 (sold separately)
Chassis	440 x 253 x 44mm (W x D x H) 1U, rack-mounting kit included Approximate weight: 3.6kg	440 x 253 x 44mm (W x D x H) 1U, rack-mounting kit included Approximate weight: 3.6kg
Peripheral Products	RPS-600 Redundant Power Supply Dell SFP Transceivers (1000-SX and 1000-LX)	RPS-600 Redundant Power Supply Dell SFP Transceivers (1000-SX and 1000-LX)

[1] This term does not connote an actual operating speed of 1GB/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

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